Addiction Medicine
and the Primary Care Physician

The Treatment of Perinatal Addiction
Identification, Intervention, and Advocacy

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Women of reproductive age who use and abuse psychoactive drugs and alcohol present a special challenge to primary care physicians. There are compelling medical reasons for identifying and intervening with pregnant women who are addicted or have alcoholism. The teratogenicity of all drugs of abuse and alcohol, the risk of infection with the acquired immunodeficiency syndrome (AIDS), and the potential for full recovery of a pregnant woman from addiction are some of the reasons that identification and intervention in the problem are indicated. Whether encountered in the clinic setting or in private practice, chemically dependent pregnant or postpartum women are usually responsive to appropriate physician interventions that include a detailed and caring confrontation- and advocacy-oriented support. Complex legal and ethical issues surround perinatal addiction including the role of toxicologic screening, reports to child welfare services, issues in noncompliance, and interdisciplinary case management.

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Pregnancy is a time of change, motivation, and a general orientation by the woman toward behavior that will benefit the developing fetus. For addicted women, however, the continued use of drugs and alcohol despite being pregnant shows one of the behaviors of addictive disease.[1] Chemically dependent women are a highly stigmatized group; the stigma experienced by a pregnant woman addicted to drugs or alcohol is even greater and more vitriolic in nature. Most research in the field of women's chemical dependence treatment suggests that drug or alcohol problems in women are less likely to be recognized; women in whom these problems are recognized are much less likely to be able to find appropriate treatment services that can provide for their needs.[2] Women who do seek treatment are frequently turned down for recovery services simply on the basis of their pregnancy or for having a newborn that they wish to be with in the treatment setting (W. Chavkin, "Help. Don't Jail Drug-Addicted Mothers," *The Oakland Tribune,* July 19, 1989).[3]

Over time, however, it has been effectively shown that comprehensive treatment programs for addicted pregnant women do work.[4-6] Comprehensive services for pregnant addicted women would include obstetric and pediatric care, parenting and childbirth preparation classes, public health nursing visits, and chemical dependence treatment. Woman-oriented treatment services are those that address the specific needs of women in treatment and that reduce barriers to recovery more frequently experienced by women. Therapy for women should also be provided in a style that is acceptable to and accessible by them, taking into account "women's roles, socialization, and relative status within the larger culture."[2] Referral by a primary care physician to chemical dependence treatment and such comprehensive services is only possible when the physician is attuned to the identifying characteristics of addiction in pregnant women. When the diagnosis is suspected, or when there is a "high index of concern" (M. Buxton, oral communication, November 1989), the primary care physician can be instrumental in facilitating the health and well-being of the pregnant addict and her infant.

Medical, Historical, and Behavioral Indicators

Knowledge of the medical, behavioral, and historical identifying characteristics of addicted or alcoholic pregnant women is the primary task of an intervener when preparing for a treatment-oriented intervention. Additionally, certain history-taking tools with proven reliability may be used effectively during the intake process.

Table 1 lists indicators that may be visible to primary care physicians as consistent with drug or alcohol dependence. No one of these alone is indicative of a problem; rather, they should be viewed as a constellation of items that together may lead to the correct diagnosis of addiction. Indicators must also be interpreted in the context of individual patient status and history.

Obtaining a History

Women who enter treatment for their chemical dependence or for prenatal care are generally interviewed in some depth relative to their history of drug and alcohol use. Of late, there has been a singular reliance on the technology of urine toxicologic testing as the most appropriate means of identifying a drug or alcohol problem. Still, the most thorough method for obtaining an accurate history is to build a treatment alliance with the patient and then interview for signs and symptoms of addictive disease. The most reliable methods of identification remain the practitioner's individual knowledge of the disease process and the quality of relatedness between patient and physician.

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Urine toxicologic testing is certainly a part of the diagnostic process; yet, a sole dependence on this technology can be misleading as it cannot measure the patient's motivation for treatment, the chronicity of her disease, nor her willingness to seek recovery. For explicit history taking, the Drug and Alcohol History (R. Ruggiero, PharmD, Associate Clinical Professor, School of Pharmacy, the University of California, San Francisco, Medical Center, M. Jessup, unpublished data), the Ten Question Drinking History,[7] and the Michigan Alcoholism Screening Test[8] are in wide use and are satisfactorily reliable (Figures 1, 2, and 3).[9,10]

Because the use of any mood-altering chemical during pregnancy has teratogenic potential (though with wide variability in the area of dose-response), these tools are useful in that they measure not only addiction but occasional use as well. Many addicted and alcoholic women enter prenatal care after the third month of their pregnancy, so their physician may think that the history becomes secondary because damage may already have occurred. Though the first trimester is the most vulnerable time for fetal exposure to drugs, there is an "opportunity for catch-up growth and physiologic reconstitution" of the fetus of a woman with alcohol abuse.[7] In addition, some of the effects of opiates, in particular heroin and methadone, can be mediated by good nutritional intake and regular prenatal care. Information obtained in the drug and alcohol interview process becomes data for restatement to the patient in the treatment-oriented intervention process.

Intervention With the Goal of Treatment

If in the process of completing the drug and alcohol interview the physician becomes aware that the patient has addictive disease, the next step is intervention. This occurs when the physician tells the patient that it is highly likely that she has a drug or alcohol problem and that the physician is recommending treatment of the disease. Because addiction is a primary, progressive, and chronic disease, all efforts should be made to identify and treat it as soon as possible. The physician may convey a sense of hope for recovery to the pregnant woman and act as an advocate for her within the health care system. The intervention has five steps:

- Stating the indicators of a drug or alcohol problem,
- Educating regarding possible effects on the fetus and the benefits of abstinence,
- Expressing concern,
- Referring for treatment, and
- Offering advocacy.

The intervention may be conducted with the following statements:

Step 1: You report that you use cocaine on a regular basis. I have observed that you have mood swings, are irritable and agitated, and have difficulty concentrating. You have a chronic rhinitis, and frequently when you come to my office your eyes are glassy and your pupils are dilated. You report that you have intense periods of depression and that your last child was very small for its gestational age. You've men-

TABLE 1.—*Indicators Suggesting Drug or Alcohol Dependence in a Pregnant Woman*

Behavioral	*Medical*	*Historical*
Vague history regarding personal or medical problems	Liver disease, hepatomegaly	Alcohol- or drug-abusing partner
Conflicts with significant others or domestic violence	Pancreatitis	Many emergency department contacts
History of child abuse or neglect	Hypertension	Many physician contacts
Decreased job performance or chronic unemployment	Gastritis, esophagitis	Child with neonatal narcotic abstinence syndrome
Suicidal gestures, thoughts, or attempts	Neurologic disorders	Child with alcohol-related birth defects
Car accidents	Poor nutritional status	Placement of other children outside the home
Cited for driving while intoxicated	Hematologic disorders	Complex perinatal histories and outcomes
Depression	Seropositivity for HIV	Psychiatric treatment or hospital admissions
Irritability or agitation	Bacteremia	Affective disorders
Difficulty concentrating	Alcoholic myopathy	Infants with low birth weights
Mood swings, outbursts of anger	Sensory impairment	Frequent physician prescriptions for mood-altering drugs
Inappropriate behavior	Problems of sepsis, cellulitis	Family history of alcoholism or other drug dependency
Memory lapses and losses or blackouts	Hepatitis	Sudden infant death syndrome
Intoxicated behavior	Abscesses	Family dissolution
Smell of alcohol on breath	Mitral valve disease	
Unreliability or unpredictable behavior	Septicemia	
Missed appointments	Swelling and erythema of hands	
Intense daily drama, family chaos	Overdose	
Slurred speech	Withdrawal effects	
Staggering gait	Pulmonary infections	
	Hair loss	
	Erratic menses	
	Loss of appetite	
	Poor dental hygiene	
	Anemia	
	Tuberculosis	
	Sexually transmitted disease	
	Obstetric complications, including spontaneous abortion, abruptio placentae, breech presentations, previous cesarean section, eclampsia, intrauterine growth retardation, premature labor and delivery and premature rupture of membranes, intrauterine fetal death, postpartum hemorrhage	

HIV=human immunodeficiency virus

The CAGE Questionnaire

1. Have you ever felt you should *C*ut down on your drinking?
2. Have people *A*nnoyed you by criticizing your drinking?
3. Have you ever felt bad or *G*uilty about your drinking?
4. Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover (*E*ye-opener)?

Figure 1.—The CAGE questionnaire is used to assess the possibility of a drinking problem. A "Yes" answer to 2 or 3 out of the 4 questions strongly suggests the presence of alcoholism (from Mayfield et al[9]).

Short Michigan Alcoholism Screening Test

1. Do you feel you are a normal drinker? (By normal we mean you drink less than or as much as most other people.) (No)
2. Does your wife, husband, a parent, or other near relative ever worry or complain about your drinking? (Yes)
3. Do you ever feel guilty about your drinking? (Yes)
4. Do friends or relatives think you are a normal drinker? (No)
5. Are you able to stop drinking when you want to? (No)
6. Have you ever attended a meeting of Alcoholics Anonymous? (Yes)
7. Has drinking ever created problems between you and your wife, husband, a parent, or other near relative? (Yes)
8. Have you ever gotten into trouble at work because of drinking? (Yes)
9. Have you ever neglected your obligations, your family, or your work for two or more days in a row because you were drinking? (Yes)
10. Have you ever gone to anyone for help about your drinking? (Yes)
11. Have you ever been in a hospital because of drinking ? (Yes)
12. Have you ever been arrested for drunken driving, driving while intoxicated, or driving under the influence of alcoholic beverages? (Yes)
13. Have you ever been arrested, even for a few hours, because of other drunken behavior? (Yes)

Figure 2.—The Michigan Alcoholism Screening Test is another test used to indicate the probable presence of a drinking problem. The responses in parentheses indicate the presence of alcoholism (from Selzer et al).[10] Scoring: 0-1 point = no alcoholism, 2 points = possible alcoholism, 3 points = alcoholism

tioned that the baby's father may be addicted to cocaine and that your family has expressed concern to you.

Step 2: Continued cocaine use during pregnancy could be harmful to you and your baby. It has caused infants to be very small and can put them at risk to have problems in development and functioning. Some cases of fetal strokes (bleeding in the brain) have happened in babies whose mothers used cocaine; it can also cause the placenta to separate in part or completely from the wall of the uterus. If this happens, your baby is at risk to die. Cocaine also causes your blood pressure to rise, and so you are at a greater risk for heart attack and stroke. It can also cause a loss of appetite that is not good for pregnancy; you need good nutrition for a healthy pregnancy for you and your baby.

Step 3: I am concerned that you may have a problem with cocaine.

Step 4: Here is the phone number of the women's cocaine treatment program. You can talk confidentially to them about your cocaine problem. Please make an appointment to talk to them this week. After you enroll in treatment there, I would like to get your written permission to talk with them also in order to give you support for your efforts in recovery.

Step 5: You need to know that in this county, any baby who has a positive toxicologic urine test is reported to the child welfare services for evaluation of the mother's ability to parent. I want to advocate for you within the hospital setting, but you need to be enrolled in prenatal care consistently throughout your pregnancy and to become a client at the cocaine treatment program with open communication to me. If you do both of these things, I will support you and advocate for you in any way I can at the time of the birth of your baby and during the postpartum period. You can get help for this problem; recovery is possible, and you can learn to live comfortably without the use of drugs.

Because denial is a basic component of the disease of addiction, the physician may expect to encounter at least

Drug and Alcohol Use	*Year of First Use*	*Use This Year*	*Use This Month*	*Frequency of Use This Month*	*Maximum Tolerance*
Wine					
Beer					
Liquor					
Tobacco					
Marijuana					
Caffeine					
Phenylcyclidine piperidine (PCP)					
Cocaine					
Tranquilizers*					
Opiates†					
Chemical exposures‡					
Other hallucinogens§					
Other stimulants‖					
Other¶					

*Tranquilizers: diazepam (Valium), amitriptyline hydrochloride (Elavil), methaqualone (Quaalude; sedative-hypnotic), trifluoperazine hydrochloride (Stelazine), chlorpromazine hydrochloride (Thorazine), thioridazine hydrochloride (Mellaril), fluphenazine hydrochloride (Prolixin), thiothixene (Navane), doxepin hydrochloride (Sinequan), barbiturates such as Seconal (secobarbital) and Tuinal (amobarbital sodium and secobarbital sodium).

†Opiates: heroin, methadone hydrochloride, morphine sulfate, meperidine hydrochloride (Demerol), aspirin-oxycodone hydrochloride (Percodan), codeine, propoxyphene napsylate (Darvon, Darvocet), hydromorphone hydrochloride (Dilaudid).

‡Chemical exposures: paints, insecticides, lead, varnish, solvents, and the like.

§Hallucinogens: LSD, PCP, dimethyltryptamine (DMT), mushrooms, mescaline, methylenedioxymethamphetamine (MDMA, "ecstasy").

‖Stimulants: cocaine, methamphetamine ("speed," "crystal"), methylphenidate hydrochloride (Ritalin), diet pills, dextromethamphetamine sulfate (Dexedrine, Dexamyl).

¶Over-the-counter medications: aspirin, acetaminophen (Tylenol, Datril), Nyquil (a combination of pseudoephedrine hydrochloride, doxylamine succinate, dextromethorphan hydrobromate, and acetaminophen), diphenhydramine hydrochloride (Sominex); other medications purchased in drugstore or supermarket with a prescription; vitamins.

Figure 3.—This screening questionnaire may be given to a patient during the intake process to assess possible drug or alcohol use (from Ruggiero and Jessup, unpublished data, 1987).

some denial. This behavior on the part of the patient should not, however, deter the physician from continuing the intervention and making the appropriate referral. When, in Step 1, the physician states the indicators of a problem, this must be done in as explicit detail as possible. This has a particular effect on the denial process of the patient because it makes it more difficult for the patient to completely deny the existence of a problem. The expression of concern should be given in a genuine manner with the extension of hope for recovery, as this may be instrumental in the woman's decision to seek treatment. It is therapeutic to place discussions of treatment and recovery in the context of something that gives benefit to the woman and her infant, rather than something that is a sacrifice. The issue of focusing on the self is one that arises for a chemically dependent woman in recovery.[10] Therefore, it is better to say something like, "Treatment will help you to feel better physically and emotionally, and you will have a better chance of having a healthy baby," rather than, "Do it for the baby." Language that provokes guilt should be avoided during the intervention process as those feelings of guilt may bar a woman from seeking treatment.

It is hoped that through the intervention process a pregnant woman with a drug or alcohol addiction will be compelled to take the treatment option. No intervention should be considered a failure even if the woman does not seek treatment for her addiction. Each time that the conspiracy of silence is broken, the wall of denial drops a bit further.

Intervention can be a powerful tool to facilitate recovery. If a chemically dependent pregnant woman does not seek treatment after the intervention is completed and continually does not comply with the course of prenatal care or drug or alcohol treatment, other ethical dilemmas present for the physician, and other courses of action may be indicated.

Dealing With Noncompliance

Noncompliance in prenatal care and chemical dependence treatment is particularly disturbing to many health professionals, including physicians, because it potentially affects the developing fetus as well as the woman herself. Surely a woman, once she becomes pregnant, has moral and ethical responsibilities to do everything she can to have a healthy pregnancy and infant. Yet, if that responsibility of the woman is legally mandated by the state, "such a policy would impose an unprecedented system of surveillance and coercion oppressive to all women of childbearing age" (Judith Rosen, JD, Legal Counsel, California Advocates for Pregnant Women, "Chemically Dependent Pregnant Women and Drug-Exposed Infants: Legal Issues and Implications," California Advocates for Pregnant Women, unpublished manuscript, 1989). Safe, confidential treatment options that meet the extensive needs of this population must be available and referral made before any legal, coercive, or prosecution-oriented strategies are carried out.

One issue under question regarding noncompliance in this population is the possibility of a dual diagnosis—that is, primary psychopathology (occurring first) and secondary chemical dependence (occurring later). If a woman has never received treatment for a primary psychiatric illness, she may be greatly at risk for continued drug or alcohol use.[11(p8)] It has been estimated that 10% to 15% of women with alcoholism have a primary affective disorder predating the beginning of their chemical dependence.[21] It has also been noted that some women with bipolar illness (manic depressive disorders) are more likely to be admitted to a psychiatric hospital and have increased morbidity of their disorder with excessive drinking.[12] If noncompliance continues, the physician should strongly consider consultation with and evaluation of the patient by a psychiatrist with a clinical knowledge of addiction medicine. In the addiction-only population of pregnant women, drug therapy is not indicated. For the dual-diagnosis group, it may be indicated, in which case it would need to be applied under the rubric of the benefit-to-risk ratio. In addition, psychotherapy with the goal of long-term insight for an addicted or alcoholic person may be helpful after an initial period of abstinence, recovery, and attention to those as the primary focus. For a patient with a dual diagnosis, psychotherapy in concert with recovery efforts is the optimum mode of treatment. An addicted woman who has had more than one infant affected by drugs and alcohol may well have a dual diagnosis; moreover, she may never have been evaluated, never treated, and perhaps even prosecuted for her dual diseases and the resultant behavior.

Assuming all diagnostic and treatment bases are covered and the patient still remains noncompliant, it is appropriate, after the birth of the child, to make a referral to the child welfare services of the resident county of the patient. Welfare service workers will then evaluate the risk to the child and make appropriate recommendations regarding the disposition of the child and requirements the mother must fulfill. Continued custody of the child may be contingent on the fulfillment of and compliance with a service plan set forth by the child protection agency.[13] Such a plan may include the following:

- Participation in a chemical dependence treatment program on an ongoing basis,
- Visits by a public health nurse for infant and family evaluation,
- Regular and ongoing pediatric care,
- Individual or family therapy as indicated, and
- Regular meetings with child protective services personnel.

It is appropriate for the primary care physician to provide information for the development of the service plan if child welfare services are to be involved in the case at all. Observation and advocacy for the woman and her infant are critical at this juncture.

The observations of the physician, including documentation of all attempts to intervene, are critical to the child welfare services evaluation of the case. Referral to these services before the birth of the infant is not mandatory in most states as the fetus is not covered under the mandate of the law relative to child abuse and neglect reporting (J. Rosen, unpublished data, 1989). Local jurisdiction will determine how physicians shall act; many counties in California do require reporting to child welfare services at the birth of an infant who has a positive toxicologic screening test.[3]

Physicians must guard against subjective measures of addiction criteria that may be based on stereotypic thinking and outdated belief systems. Most appropriate, a physician should have protocols for making the referral to child welfare services or for even ordering urine toxicologic testing. Some criteria for reporting to child welfare services are based in part on observation for psychosocial risk factors that are objectively noted and not dependent on race or socioeconomic status.[14] Prenatal noncompliance may result in a threatened

or actual loss of custody of the child. In some cases, this may be therapeutic as the addicted or alcoholic mother will have the opportunity to face some negative consequences of her disease; it may be her experience of "hitting bottom" in this way that moves her to seek treatment. In any case, the offering of treatment of the addiction should always be the first response of the health care system and the primary physician.

Toxicologic Screening

Urine toxicologic testing is certainly a part of the diagnostic process; yet, an overreliance on this technology can be misleading and incomplete. The debate over informed consent for such testing has recently intensified, and that debate has moved into perinatal medicine as well.[3] According to Smith,

> Traditionally, testing of a biological fluid was for the purpose of diagnosis and initiating a treatment plan . . . . [W]omen are generally not given informed consent for testing biological fluids for the release of the results to law enforcement. This, of course, is counter to the public health model . . . compromising the doctor-patient relationship" (Calif Advocates for Pregnant Women Newsletter, July-August 1989).

Legal experts in the area of addiction medicine advocate that urine testing of pregnant women should become a consensual procedure so that informed consent is obtained at the time of the initiation of any treatment that includes toxicology screening (L. Nelson, JD, oral communication, November 1989; Westley Clark, MD, JD, oral communication, October 1989). Support for this approach is growing among advocates for pregnant chemically dependent women as well (N. St Clair, MS, oral communication, July 1989). The premise of informed consent has also become increasingly accepted as a basic principle in the ethical practice of medicine.

> According to the President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Medicine,[15] informed consent as the ethical basis of patient care serves two purposes: it places respect for a patient's self-determination at the center of the physician-patient relationship and it recognizes that an active patient role in treatment decisions is often the best guarantee that these decisions will in fact promote patient well-being.[16]

Experts in perinatal medicine have urged physicians to make toxicologic screening a routine part of each prenatal visit,[14] but the costs incurred and the logistics of such a recommendation make this impractical for many practitioners. A single urine test also only gives a "snapshot" of a patient's drug use on a particular occasion at one point in time. This is akin to drawing one blood specimen from a pregnant woman with diabetes mellitus and concluding the diagnosis. Laboratory error is also a fact of life for most toxicologic screening; though false-positives are rare, they do occur. False-negatives also present a problem for practitioners; an overreliance on urine testing may cause the physician to miss the diagnosis of addiction. Rather, a working, in-depth knowledge of the disease of addiction and the ability to conduct a meaningful verbal interview are paramount in any workup for addiction. Though toxicologic screening is a valuable part of the assessment of a patient and invaluable indeed for the neonatologist, it cannot measure a patient's motivation for treatment, the chronicity of her disease, nor her willingness to seek recovery. Any evaluation of addictive disease must include those variables.

Interdisciplinary Case Management

A pregnant addicted or alcoholic woman interacts with many different providers during and after her pregnancy. In most communities, the services available are not comprehensive and, even when offered, are usually delivered in a fragmented way with little or no communication among the players. The traditional "treatment plan" for a pregnant addict in communities where services do not exist generally consists of whatever the woman has pulled together for herself and been able to participate in.

Ideally, physicians will have resources available for referral to drug treatment; childbirth education; parenting classes; voluntary and anonymous human immunodeficiency virus testing, counseling, and social services; family planning and pediatric care; and the 12-step programs of Alcoholics Anonymous and Narcotics Anonymous. To maximize outcomes for a woman and her infant, however, case management is definitely indicated. Physicians are in an ideal position to facilitate open communication and planning among all the providers of services to a pregnant chemically dependent woman. All providers should be in regular contact to assure that all facts are known, that services do not overlap, and that "splitting" of the treatment team by the patient is minimized. A treatment planning meeting is the most appropriate method to achieve these goals. Of any of the multitude of complex medical conditions, perinatal addiction especially requires a team effort.[17(p13)]

Physicians as Advocates—Policy and Community Standards

The debate on the criminalization of drug use during pregnancy is currently raging. Those who wish to criminalize maternal drug addiction and alcoholism have advocated enforcing mandatory jail sentences and incarceration in "custodial settings" for the duration of a pregnancy.[18] As a means of prosecuting pregnant addicts, others have sought to alter the child abuse statute in California to include the fetus.[19] The legal and ethical issues surrounding pregnancy and addiction are also intimately connected to the current erosion of women's reproductive rights as shown by the Webster case heard in the United States Supreme Court in July 1989.[22]

It is assumed that most providers of services to pregnant women with drug or alcohol abuse share the following goals: to reduce the prevalence of the acquired immunodeficiency syndrome in the perinatal population, to reduce the incidence of alcohol- and drug-related birth defects, to prevent child abuse and neglect, and to facilitate recovery for chemically dependent women and their families. Yet, many of the cases that have been litigated in California are those wherein a health professional figured prominently as the reporter of the case to criminal justice authorities. It may be out of desperation, the fear of a malpractice suit, or the physician's own unresolved emotions about addiction that the traditional role of healer has, in some cases, shifted to that of a law enforcement agent. Yet, if physicians wish to accomplish these goals in their work with the addicted perinatal population, a solid position of noncriminalization and advocacy for treatment and affordable prenatal care seems eminently the preferred approach.

In each case in California wherein a pregnant addict has been prosecuted, it has been in communities lacking a strong, proactive position on the right of pregnant addicts and alcoholics to treatment. Current events and public sentiment now demand that all health professionals forge a policy that supports treatment and reinforces the traditional role of health professionals as healers and helpers. Lacking policy in this

area, law enforcement becomes the policy and the procedure. Community standards of practice that address medical management, chemical dependence treatment, and legal and ethical issues must now emerge lest these be left to the criminal justice system to merely adjudicate. Physicians are in a pivotal role to facilitate the return of a public health model of treating addiction and alcoholism in pregnant women that is inclusive in scope and comprehensive in nature.

REFERENCES

1. Smith DE, Milkman HB, Sunderwirth SG: Addictive disease: Concept and controversy, *In* Milkman HB, Shaffer HJ (Eds): The Addictions: Multidisciplinary Perspectives and Treatments. Lexington, Mass, Lexington Books, 1985

2. Reed BG: Developing women-sensitive drug dependence treatment services: Why so difficult? J Psychoactive Drugs 1987; 19:151-164

3. Health and Human Services Committee and Senate Select Committee on Children and Youth: Joint hearing on Impact of Substance-Exposed Infants on Child Welfare Services, Los Angeles, October 20, 1989

4. Beschner GM, Reed BG, Mondanaro J (Eds): Treatment Services for Drug Dependent Women, Vol 1. Rockville, Md, US Dept of Health and Human Services (DHHS), National Institute on Drug Abuse, 1981

5. Finnegan LP: Drug Dependence in Pregnancy: Clinical Management of Mother and Child, US DHEW publication No. (ADM) 79-678. Rockville, Md, US Dept of Health, Education and Welfare, National Institute on Drug Abuse, 1979, pp 46-47

6. Mondanaro J, Reed B: Current Issues in the Treatment of Chemically Dependent Women. Rockville, Md, US DHHS, National Institute on Drug Abuse, 1987

7. Rosett HL, Weiner L, Edelin KC: Treatment experience with pregnant problem drinkers. JAMA 1983; 249:2029-2033

8. Michigan Alcoholism Screening Test. Am J Psychiatry 1971; 127:1653-1654

9. Mayfield D, McLeod G, Hall P: The CAGE questionnaire: Validation of a new alcoholism screening instrument. Am J Psychiatry 1974; 131:1121-1123

10. Selzer M, Vinokur A, van Rooijen L: A self-administered short Michigan Alcoholism Screening Test. J Stud Alcohol 1975; 36:117-126

11. Bissel C: Introduction, *In* Rachel V: A Woman Like You: Life Stories of Women Recovering From Alcoholism & Addiction. San Francisco, Harper & Row, 1985

12. Meyer R: Psychopathology and Addictive Disorders. New York, Guilford Press, 1986

13. Reich LH, Davies RK, Himmelhoch JM: Excessive alcohol use in manic-depressive illness. Am J Psychiatry 1974; 131:83-86

14. Issue 602, No. 83-76; 30-324 Services Plan (manual letter). Sacramento, California Dept of Social Services, 1983

15. Chasnoff IJ: Drugs, Alcohol, Pregnancy and Parenting. Hingham, Mass, Kluwer Academic Publishers, 1988, pp 197-200

16. President's Commission for the Study of Ethical Problems in Medicine and Biomedical Research: Making Health Care Decisions, vol 1. Washington, DC, Government Printing Office, 1982

17. Forrow L, Wartman SA, Brock DW: Science, ethics, and the making of clinical decisions—Implications for risk factor intervention. JAMA 1988; 259:3161-3167

18. Daghestani A: Psychosocial characteristics of pregnant women addicts in treatment, *In* Chasnoff IJ (Ed): Drugs, Alcohol, Pregnancy and Parenting. Hingham, Mass, Kluwer Academic Publishers, 1988, pp 7-16

19. Wilson P: Child Abuse During Pregnancy Prevention Act of 1989. Congressional Record, August 1, 1989; §9319

20. Royce R: Senate Bill 1070 (proposed and defeated). California State Senate, 1987

21. Schuckit M, Pitts FN Jr, Reich T, et al: Alcoholism 1—I: Two types of alcoholism in women. Arch Gen Psychiatry 1969; 20:301-306

22. Webster v Reproductive Health Services, 109 SCt 3040 (1989) (No. 88-605)